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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,675	01/22/2004	Dustin Winters	87535RLO	5145

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EXAMINER

KANG, DONGHEE

ART UNIT PAPER NUMBER

2811

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary

Application No.

10/762,675

Applicant(s)

WINTERS ET AL.

Examiner

Donghee Kang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 is/are allowed.
- 6) ☒ Claim(s) 1, 3-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>01/22/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgment is made of receipt of applicant's Information Disclosure Statement (PTO-1449) filed January 22, 2004.

Claim Objections

2. Claims 1, 11 & 12 are objected to because of the following informalities: The abbreviation "OLED" being vague, should not be used and should be replaced by an "Organic Light-Emitting Diode (OLED)". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-8, & 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Bechtel et al. (US 6,873,091).

Re claim 1, Bechtel et al. teach an organic light-emitting diode (OLED) device having green emitting regions disposed over a substrate, and wherein each green emitting region further includes (Fig.1):

One or more light-emitting layer (6 & 7); a reflector and a semitransparent reflector respectively disposed on opposite sides of the light-emitting layer and arranged

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to resonate light produced by such layer such that the light has a substantially green spectral component; and a yellow color filter (9) element disposed in relationship to each green emitting region to produce green light (Col.3, lines 11-67).

Re claims 3-4, Bechtel et al. teach each yellow filter element is selected to have a cut-off wavelength 500 nm and at visible wavelengths greater than the cut-off wavelength the transmittance of the color filter element is greater than at the transmittance at the cut-off wavelength and at visible wavelength lower than the cut-off wavelength the transmittance of the color filter element is less than at the transmittance at the cut-off wavelength.

Re claims 5-6, Bechtel et al. teach the emitting region produces light having a green color (Col.2, lines 41-44), which has a peak light emission between 490 nm and 570 nm at a normal angle to the substrate. .

Re claim 7, Bechtel et al. teach the reflector, the semitransparent reflector or, both also serve as electrodes for the light-emitting layers.

Re claim 8, Bechtel et al. teach the semitransparent reflector includes Ag.

Re claim 10, Bechtel et al. teach OLED is configured to be a top emission device.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtel et al. (US 6,873,091) In view of Yu et al. (US 6,873,093).

Bechtel et al. do not explicitly teach the OLED further comprises one or more emitting regions perceived to emit red light and one or more emitting region perceived to emit blue light. Yu et al. teach OLEDs comprising a blue, green and red emitting area to obtain full color images. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form a pixellated array of blue, green and red emitting area in order to obtain full color images.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtel et al. (US 6,873,091).

Bechtel et al. teach an organic light-emitting diode (OLED) device having green emitting regions disposed over a substrate, and wherein each green emitting region further includes (Fig.1):

One or more light-emitting layer (6 & 7); a reflector and a semitransparent reflector respectively disposed on opposite sides of the light-emitting layer and arranged to resonate light produced by such layer such that the light has a substantially green spectral component; and a yellow color filter (9) element disposed in relationship to each green emitting region to produce green light (Col.3, lines 11-67).

Bechtel et al. do not teach red emitting region. However, Bechtel et al. teach the spectra range of the light passed by the cut-off filter (yellow filter) corresponds to the radiation emitted by the electroluminescent layer and the cut-off wavelength is 500 nm.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form yellow filter on the red emitting layer since the yellow filter transmit electromagnetic radiation whose wavelength is higher than a cut-off wavelength 500 nm without reflection within the display device.

Allowable Subject Matter

8. Claim 11 is allowed.

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghee Kang whose telephone number is 571-272-1656. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Donghee Kang
Primary Examiner
Art Unit 2811

dhk